

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number  
WO 2005/075752 A1

(51) International Patent Classification<sup>7</sup>: E02F 5/12, (74) Agent: WATERMARK PATENT & TRADEMARK 5/10, E02D 17/12 ATTORNEYS; 290 Burwood Road, Hawthorn, VIC 2122 (AU).

(21) International Application Number: PCT/AU2005/000153

(22) International Filing Date: 8 February 2005 (08.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 2004900639 10 February 2004 (10.02.2004) AU

(71) Applicant (for all designated States except US): MITCHELL AUSTRALASIA PTY LTD [AU/AU]; Level 1, 350 King Street, West Melbourne, VIC 3003 (AU).

(72) Inventor; and

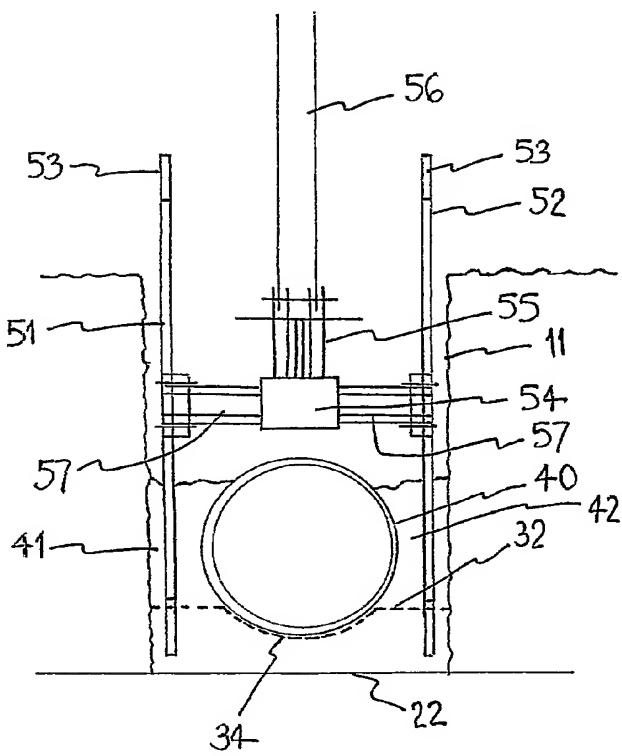
(75) Inventor/Applicant (for US only): MITCHELL, Wayne, Gregory [AU/AU]; 67 Anzac Avenue, Seymour, VIC 3660 (AU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: APPARATUS FOR SPREADING, LEVELLING AND COMPACTING PARTICULATE MATERIAL IN TRENCHES



(57) Abstract: The specification discloses apparatus for spreading, levelling fine particulate earth or sand material in the base region of a preformed trench (11) and separately for compacting said fine particulate material about a pipe line laid in the trench, the apparatus including a spreader and leveller device (10) having a pair of spaced side walls (12, 13) each supported on a skid member (14) to facilitate sliding along the base (22) of the trench (11), the apparatus (10) also having adjustable width cross braces (23, 24), an open front face (20), formed transverse wall (25) that is also adjustable in width and having a lower edge (27) that is adjustable in height relative to the skid members (14), the apparatus (10) further having connection means to enable the apparatus (10) to be connected to machinery for towing same along said trench, the apparatus further including a separate compaction device (50) compressed by a pair of spaced wheels (51, 52) having teeth (53) around their peripheries, the wheels (51, 52) being adjustable in transverse position relative to each other and connection devices (54, 55) being provided enabling the compaction device (50) to be connected to the operational boom of a front end loader whereby rotating motion of the toothed wheels (51, 52) through previously laid fine particulate material compacts same.



**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*